REMARKS

APPLICATION STATUS

No claims have been canceled and no new claims have been added. Accordingly, claims 1-29 are pending in the present application. No new matter has been introduced by way of the present amendment.

DRAWING OBJECTION

The objection to the drawings as failing to comply with 37 CFR § 1.84(p)(5), because reference signs 80-85 are allegedly not mentioned in the description, is respectfully traversed as being contrary to fact. In page 14, lines 12-13, the present specification recites:

> Figure 11 illustrates a wellbore having six different sets of hole sizes 80 – 85, along the pipe length.

Accordingly, it is respectfully requested that the objection to the drawings be reconsidered and withdrawn.

SPECIFICATION OBJECTION

The objection to the Abstract of the Disclosure because it contains purported merits is respectfully traversed. The Abstract has been amended to overcome the objection. Accordingly, it is respectfully requested that the objection to the Abstract be reconsidered and withdrawn.

35 USC § 102 REJECTION

Claims 1, 2, 4-10, 12-17, and 19-25 are allowable over US 5,392,850

The rejection of claims 1, 2, 4-10, 12-17, and 19-25 under 35 USC § 102(b), as being anticipated by U.S. Patent No. 5,392,850 to Cornette *et al.* (hereinafter referred to as "the Cornette patent") is respectfully traversed for the reasons set forth hereinafter.

Claim 1 recites:

> a plurality of longitudinal gravel pack sections disposed within a well, the gravel pack sections capable of imposing a predetermined substantially radial

flow restriction upon fluid production flowing substantially radially through the gravel pack section;

wherein at least one of the gravel pack sections creating a **substantially radial** flow restriction that is different from the **substantially radial** flow restriction of at least one other gravel pack section.

Thus, the present invention, as claimed in claim 1, requires that one of the gravel pack sections creates a radial flow restriction that is different than that of another of the gravel pack sections. Radial flow is defined in the present specification as fluid flow from the reservoir into the sand screen or base pipe, fluid flow traveling through the sand screen and/or holes in the base pipe in a generally radial direction, and fluid flow through a gravel pack in a generally radial direction. The term includes fluid flow that is generally radial in orientation to the wellbore and sand screen, but that flows around the individual grains of sand comprising the gravel pack.[1]

The Cornette patent discloses spaced apart layers of gravel packing 18, 20 within a wellbore space 17 that communicate with correspondingly spaced apart perforations 14, 16. A gravel layer 22 is disposed between the gravel packing layers 18, 20.[2] In some situations, a zone proximate one of the perforations 14, 16 may tend to produce unwanted fluids into the wellbore space 17. The Cornette patent teaches that it is desirable, in such a situation, to decrease the permeability of the gravel packing layer 22 so that the undesirable fluids are inhibited from flowing between the gravel packing layers 18, 20. Such a flow of fluids is not in the radial direction, as required by claim 1, but is rather in an axial direction, which is generally perpendicular to the radial direction. The Cornette patent teaches that a sub 38, disposed proximate the gravel packing layer 22, is capable of injecting a quantity of permeability reducing

[1] *See* page 14, lines 3-10, of the present specification.
[2] *See* column 2, lines 51-57, of the Cornette patent.

material into the gravel packing layer 22 to reduce its permeability to the flow of unwanted fluids between the gravel packing layers 18, 20.[3]

Claim 1 is anticipated by the Cornette patent, "[o]nly if each and every element as set forth in the claim is found, either expressly or inherently described" in a single prior art reference."[4] Further, "[t]he identical invention must be shown in as complete detail as is contained in the...claim."[5] The Cornette patent, however, falls short of these requirements.

Further, the Cornette patent fails to render the present invention, as set forth in claim 1, obvious. To establish a *prima facie* case of obviousness, three basic criteria must be met[6]:

> (1) There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, rather than merely in Applicants' disclosure, to modify the reference or to combine reference teachings;
>
> (2) There must be a reasonable expectation for success found in the prior art, rather than in Applicants' disclosure; and
>
> (3) The prior art references must teach or suggest all the claim limitations.

The Cornette patent is silent with regard to a need or to even the possible desirability of having one gravel pack section that creates a radial flow restriction that is different than that of another gravel pack section. Thus, the Cornette patent fails to provide any suggestion or motivation for one skilled in the art to modify the Cornette apparatus to include such gravel pack sections as required by claim 1. Since the Cornette patent is silent with regard to such gravel pack sections, it cannot provide any reasonable expectation for success and it cannot teach or

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[3] *See* column 3, lines 24-44, of the Cornette patent.
[4] *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).
[5] *See Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).
[6] *See* MPEP 2143 and *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

suggest all of the limitations of claim 1. Accordingly, the Cornette patent fails to render the present invention, as set forth in claim 1, obvious.

Claims 2 and 4-10 depend from claim 1. Accordingly, the remarks provided above in regard to claim 1 apply equally to claims 2 and 4-10.

Claim 10 recites, among other things, an apparatus comprising a tubular having screen sections, wherein each screen section comprises a flow restriction element capable of imposing a known restriction on the communication of fluid flow, thereby regulating the pressure profile along the production tubular length. The restriction of at least one screen section varies from the restriction of at least one other screen section. The Cornette patent, however, merely discloses a device having two gravel pack screens 34, 36. The Cornette patent is silent with regard to an apparatus having a screen with a restriction that varies from another screen. Accordingly, the present invention, as set forth in claim 10, is allowable over the Cornette patent.

Claims 12-17 depend from claim 1. Accordingly, the remarks provided above in regard to claim 10 apply equally to claims 12-17.

Claim 19 recites a method for controlling production drainage rates including placing a gravel pack within a well, the gravel pack comprising a plurality of longitudinal gravel pack sections capable of imposing flow restrictions upon fluid production flowing **substantially radially** through the gravel pack sections. As discussed above concerning claim 1, the Cornette patent fails to disclose or suggest such a method. Accordingly, the present invention, as set forth in claim 19, is allowable over the Cornette patent.

Claims 20-22 depend from claim 19. Accordingly, the remarks provided above in regard to claim 19 apply equally to claims 20-22.

Claim 23 requires, among other things, varying a **substantially radial** flow restriction along a wellbore length. As discussed above concerning claim 1, the Cornette patent fails to disclose or suggest varying any flow restriction in a substantially radial direction. Accordingly, the present invention, as set forth in claim 23, is allowable over the Cornette patent.

Claim 24 depends from claim 23. Accordingly, the remarks provided above concerning claim 23 apply equally to claim 24.

Claim 25, as amended, recites, among other things, placing a gravel pack within the sand screen/wellbore annulus, wherein the gravel pack comprises a plurality of longitudinal gravel pack sections capable of imposing **at least two different flow restrictions upon fluid flowing radially** through the gravel pack sections. As discussed above concerning claim 1, the Cornette patent neither discloses nor suggests gravel pack sections capable of imposing at least two different flow restrictions upon fluid flowing radially therethrough. Accordingly, the present invention, as set forth in claim 25, is allowable over the Cornette patent.

Therefore, it is respectfully requested that the rejection of claims 1, 2, 4-10, 12-17, and 19-25 under 35 USC § 102(b), as being anticipated by the Cornette patent, be reconsidered and withdrawn.

35 USC § 103 REJECTION

Claims 3, 11, 18, and 26-29 are allowable over US 5,392,850 in view of US2002/0157837

The rejection of claims 3, 11, 18, and 26-29 under 35 USC § 103(a), as being unpatentable over the Cornette patent in view of U.S. Patent Application Publication 2002/0157837 to Bode *et al.* (hereinafter referred to as "the Bode application") is respectfully traversed for the reasons set forth hereinafter.

Claim 3 recites a wellbore completion comprising a plurality of longitudinal gravel pack sections, wherein at least one of the gravel pack sections creates a substantially radial flow restriction that is different from the substantially radial flow restriction of at least one other gravel pack section. As discussed above concerning claim 1, from which claim 3 depends, the Cornette patent fails to disclose or suggest such a wellbore completion. Rather, the Cornette patent teaches that a gravel pack creates an axial flow restriction between two other gravel pack sections. The Bode application discloses a tubular member 72 having apertures 74 formed therein. A slidable sleeve 76 is disposed radially outward of the tubular member 72 and is selectively movable to cover or to uncover the apertures 74 of the tubular member 72.[7] The Bode patent is silent with regard to gravel pack sections that have different substantially radial flow restrictions. Neither the Cornette patent nor the Bode application, either taken singly or in combination, disclose all of the limitations required by claim 3. Thus, they cannot render the present invention, as set forth in claim 3, obvious.

Claim 11 and 18 each recite an apparatus having screen sections, wherein a flow restriction of at least one screen section varies from the flow restriction of at least one other screen section. As discussed above concerning claim 10, from which claims 11 and 18 depend, the Cornette patent fails to disclose or suggest such an apparatus. The Bode application also fails to disclose or suggest screens having different flow restrictions but, rather, discloses a tubular member 72 having apertures 74 coverable or uncoverable by a sliding sleeve 76. Neither the Cornette patent nor the Bode application, either taken singly or in combination, disclose all of the limitations required by claims 11 and 18. Thus, they cannot render the present invention, as set forth in claims 11 and 18, obvious.

[7] *See* paragraph [0042] of the Bode application.

Claim 26 recites a method for completing a wellbore, comprising:

> developing a simulation completion model for the well that provides a desired flow restriction per well length to provide substantially equal drainage rates within the well productive zone length; and
>
> providing a completion system comprising a sand screen and a gravel pack, the system having generally the desired flow restriction per well length as determined by the simulation completion model.

The Office Action alleges that it would have been obvious to one skilled in the art to develop a simulation completion model for the well that provides a desired flow restriction per well length to provide substantially equal drainage rates within the well productive zone length. Applicant respectfully traverses this allegation. Neither the Cornette patent nor the Bode application, either taken singly or in combination, disclose or suggest developing such a model. The cited references must disclose all of the claim limitations; however, neither the Cornette patent nor the Bode application, either taken singly or in combination, disclose developing such a model.

Further, neither the Cornette patent nor the Bode application, either taken singly or in combination, disclose or suggest providing a completion system, comprising a sand screen and a gravel pack, having generally the desired flow restriction per well length as determined by the simulation completion model. The Cornette patent teaches inhibiting a flow of fluid between two gravel packs. The Bode application teaches regulating the flow through a gravel pack. However, neither reference discloses or suggests a system having a desired flow restriction per well length, as required by claim 26. Accordingly, the present invention, as set forth in claim 26, is allowable over the Cornette patent in view of the Bode application.

Claims 27-29 depend from claim 26. Accordingly, the remarks provided above concerning claim 26 apply equally to claims 27-29.

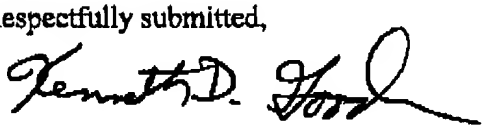
Claim 27 requires a completion system comprising a sand screen and a gravel pack of varying densities along the wellbore length. As discussed above, neither the Cornette patent nor the Bode application, either taken singly or in combination, discloses or suggests such a completion system. Accordingly, claim 27 is allowable over the Cornette patent in view of the Bode application.

Therefore, it is respectfully requested that the rejection of claims 3, 11, 18, and 26-29 under 35 USC § 103(a), as being unpatentable over the Cornette patent in view of the Bode application, be reconsidered and withdrawn.

CONCLUSION

Wherefore, in view of the foregoing amendments and remarks, this application is considered to be in condition for allowance, and an early reconsideration and a Notice of Allowance are earnestly solicited. The Examiner is invited to contact Daren C. Davis at (817) 578-8616 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,



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